

# CHAPTER NINE

## Don't "follow your passion"

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### Which careers make the most difference?

As Peter Hurford entered his final year at Denison University, he needed to figure out what he was going to do with his life. He was twenty-two, majoring in political science and psychology, and he knew he wanted a career that would both be personally satisfying and would make a big difference. Graduate school was the obvious choice for someone with his interests, but he didn't know what his other options were, or how to choose among them.

How should young people like Peter who want to make a difference in their careers go about their decisions? What if you're later in your career but are considering changing jobs so you can have a bigger impact? In chapter five, we saw that earning to give is one powerful way to make a difference, but it's certainly not the only way. There are a dizzying number of career paths, each with their positives and negatives. At the same time, the decision is high-stakes. Your choice of career is a choice about how to spend more than eighty thousand hours over the course of your life, which means it makes sense to invest a considerable amount of time in the decision. If you were to spend just 1 percent of your working time thinking about how to spend the other 99 percent, that would mean you'd spend eight hundred hours, or twenty working weeks, on your career decision. I doubt many people spend this much time thinking about their careers, but it might be worth it.

Over the last few years at 80,000 Hours, we've coached hundreds of people like Peter, as well as people later in their careers, most of whom find the following framework useful in figuring out what their next career steps should be. There are many considerations relevant to choosing the right career for you, and this framework ensures that you give due weight to what's most important. You should ask yourself:

*How do I personally fit with this job? How satisfied will I be in this job? Am I excited by the job? Do I think I could stick with it for a significant period of time? How good am I, or could I become, at this type of work,*

compared to other people and compared to other careers I might choose?

*What's my impact while I'm working at this job?* How many resources can I influence, whether that's the labor I provide, the people or budget I manage, the money I earn, or a public platform I have access to? How effective are the causes to which I can direct those resources?

*How does this job contribute to my impact later on in life?* How well does this job build my skills, connections, and credentials? How well does this job keep my options open? How much will I learn in the course of this job about what I might want to do next?

Let's discuss each of these three key factors in turn.

## **Personal fit**

Personal fit is about how good you'll be in a particular job. An important part of this is whether you'll be happy doing the work. People often want job satisfaction as an end in itself, but it's also a crucial factor when thinking about impact: if you're not happy at work, you'll be less productive and more likely to burn out, resulting in less impact in the long-term. However, we need to be careful when thinking about how to find a job you'll love. There's a lot of feel-good misinformation out there, and the real route to job satisfaction is somewhat counterintuitive.

On June 12, 2005, Steve Jobs stood in front of the graduating class at Stanford and gave them his advice on what they should do with their lives:

You have to trust in something— your gut, destiny, life, karma, whatever— because believing that the dots will connect down the road will give you the confidence to follow your heart, even when it leads you off the well-worn path, and that will make all the difference.

You've got to find what you love, and that is as true for work as it is for your lovers. Your work is going to fill a large part of your life, and the only way to be truly satisfied is to do what you believe is great work, and the only way to do great work is to love what you do. If you haven't found it yet, keep looking, and don't settle. As with all matters of the heart, you'll know when you find it, and like any great relationship it just gets better and better as the years roll on. So keep looking. Don't settle.

Jobs' message is emotionally resonant and appealing, and career advice is commonly built around slogans like "follow your heart" or "follow your passion." The first paragraph of the advice book *Career Ahead* ends, "You owe it to yourself to do work that you love. This book will show you how." A popular YouTube video, *What If Money Was No Object?* narrated by British writer Alan Watts, advises similarly. It suggests that, unless you ask yourself, "What makes you itch?" and pursue the answer, you will "spend your life completely wasting your time. You'll be doing things you don't like doing in order to go on living, that is to go on doing things you don't like doing, which is stupid." At its most extreme, the talk around career choice sounds similar to the talk around romance: when you find your perfect fit, you'll just know.

Taken literally, however, the idea of following your passion is *terrible* advice. Finding a career that's the right "fit" for you is crucial to finding a career, but believing you must find some preordained "passion" and then pursue jobs that match it is all wrong. Ask yourself, is following your passion a good way to achieve personal satisfaction in the job you love? Should you pick a career by identifying your greatest interest, finding jobs that "match" that interest and pursuing them no matter what? On the basis of the evidence, the answer seems to be no.

First, and most simply, most people don't have passions that fit the world of work. In one study of Canadian college students, it was found that 84 percent of students had passions, and 90 percent of these involved sports, music, and art. But by looking at census data, we can see that only 3 percent of jobs are in the sports, music, and art industries. Even if only half the students followed their passion, the majority would fail to secure a job. In these cases, "doing what you're passionate about" can be actively harmful.

Indeed, often the fact that you're passionate about something is a good reason why it will be difficult to find a job in that area, since you have to compete with all the other people who are passionate about the same thing. This is the situation in sports and music, where only extremely talented (or lucky) people can make a steady living. In the United States, fewer than one in one thousand high school athletes will make it into professional sports. For the large majority of people who don't have work-related passions, the advice to "follow your passion" might merely prompt anxious soul-searching and send them into the wrong careers.

Second, your interests change. Psychologists Jordi Quoidbach, Daniel T. Gilbert, and Timothy Wilson have shown that they change much more than we anticipate, so we overrate their importance. Just think about what you were most interested in ten years ago. Chances are, it's completely different from what you're interested in today. If you focus only on what you're currently passionate about, then you risk committing to projects that you soon find you're no longer interested in.

This takes us to our third point against passion, which is that the best predictors of job satisfaction are features of the job itself, rather than facts about personal passion. Instead of trying to figure out which career to pursue based on

whatever you happen to be most interested in today, you should start by looking for work with certain important features. If you find that, passion will follow.

Research shows that the most consistent predictor of job satisfaction is engaging work, which can be broken down into five factors (this is known in psychology as the job characteristics theory):

1. **Independence**— To what extent do you have control over how you go about your work?
2. **Sense of completion**— To what extent does the job involve completing a whole piece of work so that your contribution to the end product is easily visible, rather than being merely a small part of a much larger product?
3. **Variety**— To what extent does the job require you to perform a range of different activities, using different skills and talents?
4. **Feedback from the job**— How easy is it to know whether you're performing well or badly?
5. **Contribution**— To what extent does your work "make a difference," as defined by positive contributions to the well-being of other people?

As well as job satisfaction, each of these factors also correlates with motivation, productivity, and commitment to your employer. Moreover, these factors are similar to those required to develop flow, the pleasurable state of being so immersed in an activity that you're completely free of distractions and lose track of time, which some psychologists have argued is the key to having genuinely satisfying experiences.

There are other factors that also matter to your job satisfaction, such as whether you get a sense of achievement from the work, how much support you get from your colleagues, and "hygiene" factors, such as not having unfair pay or a very long commute. But again, these factors have little to do with whether the work involves one of your "passions"— you find them in many different jobs.

The evidence therefore suggests that following your passion is a poor way to determine whether a given career path will make you happy. Rather, passion grows out of work that has the right features. This was even true of Steve Jobs. When he was young, he was passionate about Zen Buddhism. He traveled in India, took plenty of LSD, shaved his head, wore robes, and seriously considered moving to Japan to become a monk. He first got into electronics only reluctantly, as a way to earn cash on the side, helping his tech-savvy friend Steve Wozniak handle business deals while also spending time at the All-One Farm. Even Apple Computer's very existence was fortuitous: while Jobs and Wozniak were trying to sell circuit boards to hobbyists, the owner of one local computer store said he would buy fully assembled computers, and they jumped at the chance to make more money. It was only once they started to gain traction and success that Jobs' passion for Apple and computing really bloomed.

What about following your heart, your gut, or your itch to find work you love? The evidence suggests that won't work, either, since we're bad at predicting what will make us happy.

The way we predict how some event will affect us emotionally is by running a simulation in our heads: when I imagine feeling anxious while taking an exam, I'm imagining taking an exam, which makes me feel anxious. This anxiety is an indicator of the feeling I expect to have when I actually take the exam. From a psychological perspective, this ability to simulate the effects of an as-yet-unexperienced event is a remarkably powerful skill, one that humans possess to a degree far beyond other animals. But the simulations we run bias us in a number of predictable ways. For example, our tastes and preferences change considerably over time, in ways we don't accurately predict. You might plan your life believing you'll never want to have kids, but then find when you're thirty that your preferences change dramatically.

Our simulation-based predictions of the future are also often incomplete. Simulating future events is hard to do, and we can't possibly focus on every minute aspect of the event, so our brains just include the most important details. However, this means we may miss out on some nonessential features that would make a big difference to our emotional responses. For example, it's been found that professors on average end up much less happy after getting tenure than they predicted they would be prior to getting tenure. One possible explanation for this is that they focused too much on the positive features of getting tenure—the sense of achievement and recognition—at the neglect of others, such as an increased number of dull departmental meetings. When deciding which career to pursue, therefore, we are likely to focus our attention on factors that come to mind easily, such as salary and working hours. This might lead us to ignore other factors that are actually crucial to predicting happiness. Simply “following your heart” without paying attention to what really predicts job satisfaction can easily lead you astray.

For all these reasons, 80,000 Hours prefers to talk about “personal fit” rather than “following your heart” or “following your passion.” How can you work out where you have the best personal fit? As we've just seen, it's difficult to predict where you'll be most satisfied and where you'll perform the best just by thinking about it. Indeed, it's hard for anyone to know which job you'll be best at. Even corporate recruiters regularly make mistakes, and they have huge amounts of resources at their disposal to find the people who fit best.

This means it's best to take an empirical approach, trying out different types of work and using your track record to predict how well you'll perform in the future. At the start of your career, be open-minded about where you'll eventually be able to perform best.

Beyond track record, if you want to predict how well you'll perform, the first step is to learn as much about the work as you can. Go and speak to people in the job. Ask what traits they think are most important to success, and see how you measure up. Ask about the main reasons people end up leaving the job. Find out how people who are similar to you have performed in the past. Look at

whether you think you'd find the work satisfying based on the factors mentioned earlier. The "follow your passion" slogan assumes it's as easy as looking inward to figure out what you ought to be doing. In contrast, identifying a job with what we call good "personal fit" involves finding out as much about a job as you can, because it's features of the job itself that are much more important in determining how well you succeed and enjoy your work than whether that job corresponds with your preexisting passions.

These considerations affected Peter Hurford's decision. While at college, he was most interested in political science and had enjoyed completing several research projects with a professor there. He had always presumed he'd go to grad school to study political science. However, after reading our research on personal fit, he widened his search considerably. Instead of trying to figure out what career path fitted his current passions best, he drew up a list of fifteen possible options across a range of areas and thought about each of them in turn, spoke to people who knew about them, and thought about which he might perform best in based on his skills and experience to date. He was able to rule out some of his options after just a little bit of investigation: consulting would involve a lot of travel, which he'd hate; medicine would require a lot of retraining, which didn't seem worth it. In the end, he was able to narrow his options down to five plausible candidates. Graduate school stayed on the list but was joined by options he hadn't thought as much about previously: law school, nonprofit work, computer programming, and market research.

He thought he would fit well within any of these five categories, so he tried to decide primarily on the basis of his long-run potential for impact. This takes us to the next two aspects of the career effectiveness framework.

## Impact on the job

The second issue in our framework is how much impact you'll have within the job. Typical advice on making a difference through your career emphasizes this factor heavily. The most obvious way to do this is to work in the social sector: social-impact-focused-careers websites list job opportunities at charities, or in corporate social responsibility. However, like "following your passion," this advice can be misleading.

First, to make a difference in the social sector, the organization you work for must be effective. If your charity job was at PlayPumps International, then, no matter how enthusiastically or efficiently you worked, you'd have made very little positive impact. It's difficult to assess how effective an organization is, but the frameworks given in the chapters on effective charities and effective causes can help you, as can the key questions described in the first part of this book.

Second, you need to provide substantial value over the person who the charity would have hired instead. If you offer unusual skills or are particularly good at that job compared to others who would have worked there, then you can

offer significant additional value. If these conditions don't hold and you don't add more value than whoever would have been in your place, your impact might be small. In the most extreme case, if you are simply very good at interviewing and not that great an employee, you could even cause harm by displacing someone better who would have been in your shoes.

Third, there are many other ways of making a difference. Earlier, we saw the arguments in favor of earning to give, and helping others through your donations rather than through your direct labor. As we'll discuss later in this chapter, there are also very compelling ways of making a difference that aren't in the social sector, such as entrepreneurship, research, journalism, or politics.

In general, we recommend people think of three primary routes by which they can have impact on the job. The first is through the labor you provide. This can be the work you do if you are employed by an effective organization, or the research you do if you are a researcher. The second is the money you can give. The third is the influence you can have on other people. In order to work out the total impact you can have, you should look at all three of these; whereas advice that solely focuses on the charity sector only looks at the first.

Next, you need to assess how effective the causes or organizations to which you can direct these resources are. The more effective the cause or organization, the more good those resources will do. For your labor, that's the effectiveness of the organization you work for. For your donations, that's the effectiveness of the organization you donate to. What you're able to influence depends heavily on your situation: you might be able to influence the expenditure of the charity you work for, you might be able to influence the donations of your coworkers, or you might be able to influence the general public through a public platform. In each case, the more effective the causes you're able to support, the more impact you'll have.

The fourth and most important reason why "work in the social sector" might be bad advice is that if you're just starting out, it's much more important to build skills and credentials than it is to have an impact on the job. There are a few reasons for this. First, there are many ways of boosting your potential for influence later that have high return on investment, such as getting an advanced degree or an MBA, learning to program, or building your network. Whereas your first position might last a few years, your subsequent career will last decades. Spending a few years building your abilities now, therefore, can pay off with increased impact over a much longer period. In addition, the most senior people within a field generally have a disproportionate amount of influence and impact within that field. Maximizing your chances of getting into more senior and influential positions is therefore a key part of maximizing your impact.

For these reasons, especially when starting out, you should focus on building up skills, network, and credentials, rather than trying to have an impact right away. This is how many of the most effective charities we've discussed have been founded. GiveDirectly, Schistosomiasis Control Initiative, Deworm the World Initiative, and Development Media International were all founded by academics who discovered innovative new ways to help the poor. Rob Mather,

who founded Against Malaria Foundation, had spent many years building skills in strategy consulting before moving into the charity sector. This meant he had a good grasp of how to run an organization well, and that, once he came to set up AMF, he didn't need to take a salary.

Building career capital can be important later in your career as well if you're not sure which causes to support. Instead of trying to make an immediate impact, you can invest in yourself while continuing to learn about which causes are most important, preparing yourself to make a bigger difference in the future.

With these considerations in mind, Peter Hurford didn't place too much weight on the immediate impact he could have in the job he worked for. If he looked at immediate impact only, earning to give and nonprofit work were his best options, with graduate school and law school following. However, these options differed significantly in terms of the impact they'd enable him to have later on in his life, and that was more important to him. This takes us to the final section of the framework.

## Impact later in life

There are a number of ways in which a given job can help you have a larger impact later on in life. Through your initial work, you develop "career capital"—skills, a network, and credentials—which will help you take a higher-impact job later on. If you develop organizational skills, then all other things being equal, you will be more effective in your next job. If you get to know a large number of people through your work, you are more likely to be connected with job opportunities. If you work at a high-prestige firm like Google or McKinsey & Company, that line on your resume will make you more attractive to future potential employers.

In addition to career capital, there are two other ways in which your initial job will affect the impact you have later on in your career. First is how well it keeps your options open. It's easier, for example, to transition from the for-profit sector to the nonprofit sector than vice versa. Similarly, it's easier to transition from academia into industry than it is the other way around; for people who are highly uncertain about whether they want to leave academia after their PhD, this asymmetry provides a reason for staying in academia until they have better information. Keeping your options open also provides a reason for building transferable skills—such as sales and marketing, leadership, project management, business knowledge, social skills, personal initiative, and work ethic—rather than highly specific skills, like piano tuning or knowledge of the shipping industry.

Second, there is "exploration value": How much do you learn about what careers you should choose in the future in the course of doing the job? Especially when you're just starting out, you won't know much about what opportunities are out there and which will fit you best. Your first few jobs will give

you valuable information that will inform your later decisions. This can provide a reason in favor of trying things that are less well-known to you at first. Perhaps, after college, you have a good understanding of what pursuing a master's and a PhD would involve, but you have very little understanding of the for-profit world, both in terms of how much you'd enjoy it and in terms of how well you'd fit there. Exploration value provides a reason in favor of working in the for-profit sector for a year or two: you might discover that the opportunities there suit you well.

People embarking on their careers often neglect these considerations. People often tend to think of choosing a career as an all-or-nothing proposition: a one-off life decision that you make at age twenty-one and that you can't change later. A way to combat this mistake is to think of career decisions like an entrepreneur would think about starting a company. In both career choice and entrepreneurship, you start out with a tiny amount of relevant information, but you have to use that information to cope with a huge number of variables. Moreover, as things progress, these variables shift: you're constantly gaining new information; and new, often entirely unexpected, opportunities and problems arise. Because of this, armchair reasoning about what will and won't happen isn't very useful.

In the case of entrepreneurship, Eric Ries has argued forcefully for this idea and created the popular Lean Startup movement. The idea behind the Lean Startup is that many entrepreneurs make the mistake of getting excited about some product or idea and then doing everything they can to push it onto the world even before they've tested it to see if there's a market for it. When companies do this, products often fail because they were reasoning from the armchair when they should have been experimenting. Ries argues that entrepreneurs should think of their ideas or products like hypotheses, and continually test, ultimately letting the potential customers determine what the product should be.

In the case of career choice, many people make an analogous mistake. They try to decide, early on, what their career should be and then they doggedly try to pursue that career, ignoring other possibilities that might arise and failing to consider that the job might not be right for them. (Sometimes this is caused by the idea of having a "calling" that you try to force onto the world, without testing to find out if it's something that the world actually needs.) Instead of trying to work out what your calling is and then forming a rigid plan on the basis of that calling, you should think like a scientist, testing hypotheses. This has three implications.

First, it means you should think of your career as a work in progress. Rather than having a fixed career plan, try to have a career "model"—a set of provisional goals and hypotheses that you're constantly revising as you get new evidence or opportunities. It's better to have a bad plan than no plan, but only if you're open to changing it.

Second, find out where you're uncertain, then reduce that uncertainty. Before making a decision, don't merely try to weigh all the pros and cons as you currently see them (though that is a good thing to do). Ask yourself: What is the

single most important piece of information that would be most useful for my career decision? Now, what can I do in order to gain that information?

Third, test yourself in different paths. In science, you try to test hypotheses. Similarly, if you can, you should try to run “tests” of different career plans; this is important because it’s often very difficult to predict in advance what careers will work out and which won’t. For example, one person we coached started an internship at an asset management firm. Having no experience in it, she didn’t know whether she’d like it, but she guessed she wouldn’t. It turned out she hated the job. In a sense, she “failed.” But that failure meant she could be much more confident in pursuing a different (academic) path instead. Her bad experience was very valuable.

## **Peter’s decision**

For all these reasons, Peter regarded his potential impact later in life as the most important factor to consider when deciding which career to pursue. This made law school look considerably worse than he had previously thought: he’d be committed to one path, learning a very specific set of skills, ending up after three years with considerable debt.

Similar reasoning made software engineering or market research look more promising than nonprofit work. Both options would allow him to have a big immediate impact (via his donations if he was working as a software engineering or market researcher; via his labor if he was working at a nonprofit), and he also felt he would gain better long-term skills, and learn more, if he pursued options in software engineering or market research than he would if he worked for nonprofits straight out of college.

As a result, in his final year at school, he invested heavily in developing his computer programming skills, which enabled him to get a job as a software engineer at a startup in Chicago that offers online loans to people with near-prime credit ratings. The organization he’s working for is certainly improving the world, but it isn’t the most effective organization he could work for. However, it allows him to build his skills in programming and statistics and will also allow him to gain business and financial experience, which will potentially open doors later on.

Finally, the job gives him enough free time to focus on his nonprofit projects, which will further allow him to work out whether he should ultimately transition into full-time nonprofit work, or whether he should stick to his current path and focus on earning to give.

By using this framework, you can assess the different career options available to you, but what are some of the best options? There are a huge number of possible paths, so I’ve used this framework to carve out some “career strategies” that I and the others at 80,000 Hours think are particularly promising.

(As our research progresses, these are likely to change somewhat, so it's worth also looking at the 80,000 Hours website for more information.) I'll divide top career options into "solid bets," where one is very likely to make a positive impact, and "high-potential long shots" where one has a smaller chance of making a very large impact.

## Solid bets

### Direct work for a highly effective organization

We don't often recommend that people go into nonprofit work straight out of college, because you will typically build fewer skills and credentials than you would in for-profit companies, which typically have greater resources to invest in training. However, there are still many situations where starting off working in a nonprofit can be a good bet. If you're considering working for a nonprofit, ask yourself the following questions:

- Is the organization particularly effective?
- Will I learn a lot working here?
- Is the organization money-rich but talent-poor?
- Am I sure I want to work within nonprofits long-term?

Given these conditions, GiveWell is an example of a nonprofit that could represent an excellent place to work. It's highly effective; it's very well run and gives excellent training to those who work there. It also needs talent much more than it needs money. One way in which you can assess whether an organization is money-constrained or talent-constrained is simply to ask the organization if they would prefer you donate to them or work for them. For example, in 2011, Alexander Berger had just graduated from Stanford with an MA in policy, organization, and leadership studies. He was unsure whether to earn to give or to take up a position at GiveWell. When he asked them how much they'd be willing to pay to have him as an employee, he found it was considerably beyond the amount he could donate if he earned to give.

There are also personal reasons why working for nonprofits might be a good option. For example, if you are fired up by a specific cause, it might feel important to you to be in the midst of the action. Alternatively, you might worry that your values will wane if you pursued something with either indirect benefits, like earning to give, or later benefits, like building skills. Perhaps you find it helpful and inspiring to surround yourself with like-minded people, and working for a place that shares these values will keep you committed to your ultimate goals. Personal considerations like these should be taken very seriously.

Finally, it's worth bearing in mind that nonprofits are not the only effective organizations you can work for. Most of the incredible progress that humanity has made over the last few hundred years has not been due to the activities of nonprofits but through technology and innovation generally spurred by for-profit companies and governments. If you can find a company that is benefitting many people, or is correcting market failure in some way (such as by developing renewable alternatives to fossil fuels), this might be an effective means to have an impact. I'll discuss the potential of for-profits more under the Entrepreneurship section later in this chapter.

## Earning to give

Earning to give enables you to start having a significant positive impact via the very most cost-effective organizations right from the beginning of your career. Often, it also allows you to build valuable skills and a valuable network that will prove useful later on in life.

If you're aiming to pursue earning to give over the long term, it's important to work out the long-run earning potential of different careers. On the Internet, you can often find the pay at a given level of experience within a field, but it's harder to find out how difficult it is to get to that level of experience, and how high-paying the alternatives are for those who move out of that career type. Moreover, within a given career path the earnings within specific subfields and from company to company can also vary dramatically

We've researched this to help make the decision easier. Unsurprisingly, the very highest-paying careers are extremely competitive, such as finance in front-office positions, followed by consulting with somewhat lower earnings. Both of these careers also come with a high chance of dropping out, since at each stage, if you fail to be promoted, you'll probably have to switch into a different job with lower pay. Even taking this into account, however, they're still among the career paths with the highest expected earnings. Tech entrepreneurship and quantitative trading in hedge funds offer even higher expected earnings, though tech entrepreneurship comes with even higher risks (entrepreneurs have less than a 10 percent chance of ever selling their shares in the company at profit) and quantitative trading requires exceptionally strong mathematical skills.

Among less risky careers, medicine is probably the highest-earning option, especially in the United States, though earnings are probably less than in finance. Law is less appealing than one might think, because unless you can get into one of the very top law schools such as Harvard, you won't likely earn as much as you would in consulting or finance. You also have to delay your earnings for several years while you complete law school, and graduate with substantial debt.

Outside of the hypercompetitive fields mentioned, there are still some very good options. Software engineering is a lucrative career with an unusually low barrier for entry, and many of the people we've coached chose to pursue that

career. Chris Hallquist, for example, completed a philosophy degree at the University of Wisconsin– Madison. His degree didn't naturally lead to other career paths, so he looked at a wide range of options. He considered law but decided that the market for lawyers was too poor. Programming, in contrast, was highly promising. He was able to apply to App Academy, a three-month intensive programming school, and from there he got a job at a startup in San Francisco with a six-figure salary.

Sales and marketing can also be good options. As well as being fairly high paying for a given level of competitiveness, they provide particularly useful skills if you want to move into the social sector later on in your career. Accountancy and actuarial work are also high paying for their level of competitiveness.

For those without a college degree, the highest-paying careers are usually trade professions, such as electricians, elevator installers and repairers, or the police force. Other options are pilots, or working in the energy sector, such as power plant operators. For those with an associate degree, the highest-paying careers are air traffic control, or within the medical profession, such as radiation therapists, nuclear medicine technologists, or dental hygienists.

One important issue to consider for all careers, but especially when earning to give through trade professions, is whether a job will be around in the future. A job might be outsourced (as IT support has been to some extent), or automated as a result of new technology. For example, before the advent of alarm clocks, people called knocker uppers were employed to knock on the windows of sleeping people in the morning, so they could get to work on time. Similarly, computers have decreased the need for jobs that involve basic number crunching; refrigerators have decreased the need for milkmen; robotic assemblers have decreased the need for assembly-line workers. The technology for self-driving cars is already here, so it may be unwise to become a taxi or a truck driver because there is a good chance that this industry will become automated over the next couple of decades. Improvements in technology are reducing demand for clerks and secretaries. In general, jobs that require social skills (like public relations), creativity (like fashion design), or precise perception and manipulation (like boilermaking) are the least likely to become automated. Jobs that require physical proximity or high levels of training are also unlikely to be outsourced.

Another important consideration regarding earning to give is the risk of losing your values by working in an environment with people who aren't as altruistically inclined as you are. For example, David Brooks, writing in *The New York Times*, makes this objection in response to a story of Jason Trigg, who is earning to give by working in finance:

You might start down this course seeing finance as a convenient means to realize your deepest commitment: fighting malaria. But the brain is a malleable organ. Every time you do an activity, or have a thought, you are changing a piece of yourself into something slightly

different than it was before. Every hour you spend with others, you become more like the people around you.

Gradually, you become a different person. If there is a large gap between your daily conduct and your core commitment, you will become more like your daily activities and less attached to your original commitment.

This is an important concern, and if you think that a particular career will destroy your altruistic motivation, then you certainly shouldn't pursue it. But there are reasons for thinking that this often isn't too great a problem. First, if you pursue earning to give but find your altruistic motivation is waning, you always have the option of leaving and working for an organization that does good directly. At worst, you've built up good work experience. Second, if you involve yourself in the effective altruism community, then you can mitigate this concern: if you have many friends who are pursuing a similar path to you, and you've publicly stated your intentions to donate, then you'll have strong support to ensure that you live up to your aims. Finally, there are many examples of people who have successfully pursued earning to give without losing their values. Bill Gates and the other members of the Giving Pledge (a group of billionaires who have pledged at least 50 percent of their earnings to charity) are the most obvious examples, but there are many more. When Jim

Greenbaum graduated from the University of Virginia in the early 1980s, his primary aim was to make as much money as he could in order to use that money to make the world a better place. He founded a telecommunications company, Access Long Distance, in 1985, selling it fourteen years later. Now age fifty-six, he's as committed to philanthropy as he ever was, donating more than 50 percent of his assets. There is certainly a risk of losing one's values by earning to give, which you should bear in mind when you're thinking about your career options, but there are risks of becoming disillusioned whatever you choose to do, and the experience of seeing what effective donations can achieve can be immensely rewarding.

## **Skill building**

Skill building is a short-term strategy, which can be a very good option if you aren't sure about what you ultimately want to do. The idea behind this path is that you build up general-purpose career capital in order to keep your options open as much as possible, giving you time to figure out your long-run plans for having an impact and giving you skills that will be useful in what you choose to do.

Given this strategy, consultancy is a great first step. For example, Habiba Islam graduated from Oxford with a degree in politics, philosophy, and economics in 2011. She considered going into politics, and still thinks of that as a potential long-term aim, but she decided to work in consulting first. This makes

sense: by working in consulting for a few years, you get a good all-round business education, you get to meet a wide variety of people, and you get clear evidence on your CV that you're capable of working hard and meeting deadlines. You're also able to earn to give, having an impact through your donations, in the meantime.

Other areas that are good for skill building are sales and marketing, because this training seems useful if you want to move into the social sector, where the ability to advertise particular messages persuasively is important. Another alternative is to get a PhD in a useful area. This is what Jess Whittlestone did: having studied math and philosophy previously, she pursued a PhD in behavioral science at Warwick Business School. This gives her the option of going into research, but if not she has still gained an important credential as well as knowledge of statistics and organizational decision making that will become useful later on. In addition, during a PhD your time is often more flexible than when employed full-time, which means you have more opportunity to start or pursue other projects on the side. Jess, for example, has used the opportunity to write popular science articles in her spare time, giving her the option to become a full-time writer after her PhD if she chooses.

## High-potential long shots

Working for an effective organization, earning to give, and skill building are all safe bets because if you pursue them, you can be confident that you will either have an impact immediately or that you're putting yourself in a good position to have an impact later on. However, as we saw in the chapter on expected value, we should also be interested in lower-probability higher-payoff activities, and there are some promising careers where your impact takes this form. Let's look at them.

### Entrepreneurship

Entrepreneurship is an extremely promising option, giving you the potential to effect massive change, build valuable career capital, and, if pursuing for-profit entrepreneurship, make large profits that can be donated to effective causes. Entrepreneurship is also an area with lower barriers to entry than other careers, and many people without college degrees have become successful entrepreneurs. However, most start-up enterprises fail, and one has to be prepared to accept that fact. In addition, entrepreneurship usually comes with very long start his or her own business.

To illustrate how valuable nonprofit entrepreneurship can be consider GiveDirectly, which we discussed in the chapter on effective charities. With an economics PhD from Harvard, the founder, Paul Niehaus, had very good earning-to-give options. However, he clearly made the right choice to set up

GiveDirectly. Since its official launch in 2011, GiveDirectly has raised more than \$20 million in donations— an amount that is growing rapidly. Even after taking into account the fact that most of those donations would have been donated anyway (albeit probably to less effective charities), Niehaus has done far more good by founding GiveDirectly than he would have if he'd earned to give.

If you're starting a nonprofit, one good strategy is to focus on a particularly important cause (which we'll discuss in the next chapter). Another important question is to ask why the problem your new organization is addressing has not been solved already, or won't be solved in the future. Ask yourself:

- Why hasn't this problem been solved by markets?
- Why hasn't this problem been solved by the state?
- Why hasn't this problem already been solved by philanthropy?

In many cases, the answers to these questions will suggest that the problem is very difficult to solve, in which case it may not be the most effective problem to focus on. In other cases, the answers might suggest that you really can make good progress on the problem. If the beneficiaries of your action don't participate fully in markets and aren't governed by a well-functioning state, then there is a clear need for philanthropy. For example, we should expect the interests of future people to be systematically underrepresented because they don't participate in present-day markets or elections.

For-profit entrepreneurship can be even more compelling as an option than nonprofit entrepreneurship. Though it generally will be more difficult to focus your activities on the most important social problem within for-profit entrepreneurship, there is a much greater potential to grow quickly, and there is the additional benefit of larger earnings that can be used for good purposes later on in life. Economists also suggest that innovative entrepreneurship is undersupplied by the market. Professor William Nordhaus at Yale University has estimated that innovators only collect 2 percent of the value they generate; that is, for every dollar an innovative company makes in profit, society has benefitted by fifty dollars. By becoming an innovative entrepreneur, you are, on average, producing benefits to society that far exceed your paycheck.

The delightfully named Lincoln Quirk pursued this option, quitting graduate school in order to found a company called Wave, which makes it easier and cheaper for immigrants to send remittances to their home countries. Currently, if immigrants wish to send remittances, they have to use Western Union or MoneyGram. They have to go to a physical outlet to make the transfer and pay 10 percent in transfer costs. Lincoln Quirk and his cofounder, Drew Durbin, have built software that allows transfers from a mobile phone in the United States to a mobile phone in Kenya, and they take only 3 percent of the transfer costs. For now, they are just focused on Kenya, because that has particularly good infrastructure for this project, but they plan to significantly expand.

The potential positive impact of this idea is huge. Annual global remittances are over \$400 billion, several times the total global foreign-aid budget. The

potential impact Lincoln's start-up could have, by making the costs of remittances a few percent cheaper, therefore amounts to tens of billions of dollars in increased financial flow from rich countries to poorer countries every year. Even just from Maryland to Kenya, annual remittances are more than \$350 million; within one state Wave could therefore increase the amount going to Kenya every year by \$24 million. After only a few months of operation, they already have thousands of users who have collectively transferred millions of dollars to Kenya.

## Research

When Norman Borlaug was awarded the Nobel Peace Prize in 1970, the committee suggested that he'd saved one *billion* lives. Was he a politician? Or a military leader? Or a superhero? No, he was a fairly regular guy from Iowa who worked in agricultural research. He wasn't a typical academic: his credentials were limited, and he used techniques that had been available to the Victorians. Moreover, the innovation that made his name was rather boring— a new type of short-stem disease-resistant wheat. That wheat, however, was able to radically increase crop yield across poor countries. It helped to cause the "green revolution." Even after taking into account the fact that similar innovations may have happened even if he hadn't done his research, Borlaug's impact should be measured in the prevention of tens of millions of deaths.

In terms of researchers with impact, Borlaug isn't a lone example: in any list of the most influential people of all time, scientists and researchers make up a large percentage. Scientists who have clearly had a huge positive effect on the world include Fritz Haber and Carl Bosch, who invented synthetic fertilizer; Karl Landsteiner, who discovered blood groups, thus allowing blood transfusions to be possible; Grace Eldering and Pearl Kendrick, who developed the first whooping cough vaccine; and Francoise Barre-Sinoussi and Luc Montagnier, who discovered HIV.

In each of these cases, even after taking into account that these developments would have eventually happened anyway, the good each of these researchers did should be measured in the millions of lives saved. And clearly many other researchers, from Isaac Newton to Daniel Kahneman, have made a huge contribution to human progress even if it's not easy to quantify their impact in terms of lives saved.

Like innovative entrepreneurship, research is an area that is drastically undersupplied by the market because the benefits are open to everyone, and because much of the benefit of research occurs decades into the future. Governments try to fix this problem to some extent through state-funded research, but academic research is very often not as high-impact as it could be—the incentive facing many academics is work on the most theoretically interesting questions rather than the most socially important questions. This means that, by

deliberately pursuing research that has a large impact, one could make a significant difference that wouldn't have happened otherwise.

However, the distribution of achievements in research (as suggested by a number of publications, awards, and citations) is heavily fat-tailed: a large proportion of scientific achievement comes from a very small number of scientists. This suggests that research might be the best option only if it's an area you really excel in. But if you might be able to become such a person, it's an option you should take seriously.

If you're thinking about going into research, it's important to bear in mind the job prospects: fields vary dramatically in both the difficulty of getting an academic job post PhD, and in the difficulty of finding jobs outside of academia. Within philosophy, for example, there are about four times as many doctoral candidates as there are tenure-track positions; as a result, many aspiring academic philosophers end up unable to find a job in academia. In contrast, within economics the number of people who seek academic employment more closely matches the number of academic jobs. Another important consideration is the extent to which one can have an impact outside of academia. Again, an economics PhD is a good bet, being generally well respected in policy and business.

With these considerations in mind, 80,000 Hours suggests that the areas with the greatest potential to do high-impact research while simultaneously gaining career capital that keeps your options open are economics, statistics, computer science, and some areas of psychology. This, however, shouldn't deter you if you have some particular interest or expertise within an area of research that is relevant to a particularly high-priority cause area.

One good way to have impact within research is to combine fields. There are far more combinations of fields than there are individual fields, and research tends to be influenced by traditional disciplinary distinctions, so research at the intersection of two disciplines is often particularly neglected and can for that reason be very high-impact. For example, Daniel Kahneman and Amos Tversky were psychologists who caused a revolution within economics: they applied methods developed in psychology to test assumptions about rational choice that were prevalent within economics, thereby leading to the new field of "behavioral economics." By giving us a better understanding of human behavior, this field has improved our ability to cause desirable behavior change, including in development. Similarly, effective altruism has made the progress it has by combining concepts from moral philosophy and economics.

Combining fields can be especially useful when one moves from a more theoretical area to an area with real-world applications. Within academia, the most prestigious research fields—which often therefore attract the best researchers—are often those that have the fewest practical applications. (A friend of mine has jokingly commented that a Fields Medal—the equivalent of a Nobel Prize in mathematics—indicates two things about the recipient: that they were capable of accomplishing something truly important, and that they didn't.) If you are a top researcher and are willing to sacrifice some amount of status within

academia, you can have considerable impact by moving into more applied areas of research.

## **Politics and advocacy**

Politics is another area where one has a small chance of extremely large influence. For someone entering party politics in the United Kingdom, most of his or her expected impact comes from the chance of ending up in the cabinet or as prime minister. Even though the chances of being that successful are small, your potential influence, if you do succeed, is very great indeed. As discussed in the chapter on expected value, this was the reason Laura Brown pursued a career in party politics. Though we only discussed British politics in that chapter, similar considerations apply everywhere.

Advocacy also has potentially high payoffs, as one could influence the behavior of many thousands of people and help to influence debates around particular policies, though this is particularly difficult to quantify. One could become an effective advocate through journalism, or by pursuing an early career in academia and then moving to become a “public intellectual.” Someone from the effective altruism community who’s pursued this path is Dylan Matthews. He studied moral and political philosophy at Harvard. He considered continuing his studies at graduate school but instead pursued journalism in part because doing so gave him a platform from which to champion particularly important causes. He worked for *The Washington Post* and now works for Vox.com. In this position, he’s been able to promote and discuss ideas he thinks are important, such as more liberal immigration policies, a universal basic income, and the idea of earning to give.

In advocacy, we would expect the distribution of impact to be highly fat-tailed: it’s a winner-takes-all environment, where a small number of thought leaders command most of the attention. We don’t have data on impact through advocacy in general, though the distribution of book sales, which one could use as a proxy, is highly fat-tailed, as is the distribution of Twitter follower counts. Again, therefore, this is an area you might only want to go into if you think you have an unusually good chance of being successful.

## **Volunteering**

So far I’ve discussed how you can choose a career in order to make a difference. Similar considerations apply to volunteering, though there’s an additional challenge. As a volunteer, you’re often not trained in the area in which you’re helping, which means the benefit you provide might be limited. At the same time, you’re often using up valuable management capacity. For that reason, volunteering can in fact be harmful to the charity you’re volunteering for.

Anecdotally, we have heard from some nonprofits that the main reason they use volunteers is because those volunteers subsequently donate back to the charity.

This means you should try to volunteer only in ways that cost an organization relatively little. For example, by contributing high-quality work to *Wikipedia*, you can provide a significant benefit to many people at almost no cost to others. Some organizations also have opportunities that are designed to take on board volunteers with little cost. Mercy For Animals, for example, is a vegetarian advocacy organization. It has volunteers contact people who have commented on videos on factory farming on Facebook. These volunteers then discuss the option of going vegetarian with them. This provides a significant benefit while costing the charity very little in management time. An alternative route to having an impact without imposing a burden on charities is to work additional hours instead of volunteering and donate the money you make.

However, you don't need to limit yourself to this. Instead, I'd encourage you to think about volunteering primarily in terms of the skills and experiences you'll gain, which will enable you to have a greater impact later in your life. Because the total time you spend volunteering will be only a tiny fraction of the total time you spend on your career, the impact volunteering has on other areas of your life will generally be much greater than the impact you have via the volunteering itself.

For example, as an undergraduate, I went to Ethiopia to teach at a school. The impact I had there was limited (as far as I can tell, I mainly just allowed the real teacher to take some time off—which is a benefit, but a small one compared to other things I could have done with my time and money, especially given the costly flights). However, the impact that seeing extreme poverty up close had on me was significant: it shaped the choices I have made in the years since then, and it helps motivate me when I'm doing activities that are more abstract than teaching at that school. The main impact of that trip to Ethiopia was its effect on me.

It might feel odd to volunteer simply because it benefits you, but I think that, as long as you think of volunteering as the first step toward generally moving your life in the direction of making a difference, there's nothing problematic about this. Like anything, benefitting others requires some training, and volunteering can be a good way to get experience.

## Later career moves

What if you're later on in your career and want to make a difference? Later in life, the same framework we introduced at the start applies, but career capital becomes a lot less important, and facts about your specific situation (the skills and experience that you've developed) become a lot more important. For people who didn't set out to build skills that are useful for making a difference, earning to give can be a particularly good option. Often, people move from high-paying jobs

to something that directly makes a difference even though they have limited expertise in the area they move into, when they could have done much more good by keeping their high salary and earning to give.

For example, after graduating with a PhD in philosophy from Brown University in the seventies, Frederick Mulder left academia in order to become an art dealer. He became very successful but progressively wanted to use his career to make a difference. He thought being an art dealer was of neutral moral value— Or perhaps slightly negative, he told me, because of the amount of flying he has to do— but realized that moving out of art and into the nonprofit world wasn't the best way for him to use his talents. "There are many things that I'd like to see done in the world," he said, "but I can't do them myself because I don't have those skills. So what better than to use the resources I can generate by doing something I love in order to help someone else do something really important that needs to be done?" He continued in his career, donating every year between 10 and 80 percent of his earnings.

If you've built up useful skills, on the other hand, then it can be a good option to contribute those skills directly to an effective area. This is what Rob Mather of the Against Malaria Foundation did. He had extensive experience in business and sales, which meant he understood how to run an organization and pitch ideas, and had developed an incredible capacity to make things happen. (His first foray into altruism was organizing a swimming-based fund-raiser and he managed to get one hundred thousand swimmers to participate.) His background also meant that he doesn't need to take a salary, something that impressed donors in the early stages. His sales skills allowed him to get a huge amount of pro bono support from a variety of companies. As a result, he has built a charity that is among the top recommended at GiveWell, has raised more than \$30 million, and has distributed more than ten million long-lasting insecticide-treated bed nets, saving thousands of lives.

Choosing a career is one of the most important decisions you'll ever make, and I hope that the framework I've presented in this chapter will help you to think through this decision.

In order to use your career to make a difference, one rule of thumb that I mentioned is to work on a particularly important cause. However, so far I've primarily discussed only the cause of fighting global poverty. What about all the other problems in the world? How can we decide which are most important to focus on? In the next chapter, I tackle this question.

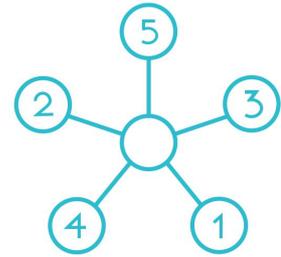
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